NITFS Technical Board

Geospatial Support Data Extensions

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Background and current efforts

- **DIGEST version 2.0**
  - Source document for geospatial information for NITF and NSIF
- **NSIF**
  - Geospatial SDEs required for all NATO systems implementing NSIF
  - NSIF Study Draft 1 points to DIGEST for GeoSDEs
- **NITF version 2.1**
  - No extensions required for certification
  - Inconsistencies between NSIF and NITF may not ensure interoperability
    - GeoSDEs required for NSIF, recommended for NITF
- **RPF-NSIF Annex D Crosswalk**
  - Initial review completed by JITC
  - Identified some inconsistencies
  - Goal is to develop single set of GeoSDEs

- **Commercial Satellite Vendors**
  - Expressed a need for single GSDE set to meet requirementsof their user communities
  - Proposed GeoSDEs somewhat different from NSIF/DIGEST

- **Airborne and National Systems**
  - Each has own set of SDEs
  - Duplication of majority of fields of information

- **Library Systems (IPA/IPL/5D and NSIL)**
  - Extensions used to catalog information

User requirements

- **Identify user requirements**
  - NATO requirements (NSIF)
  - DIGEST requirements (DIGEST Annex D)
  - Commercial satellite vendor requirements
  - Library requirements (NSIL)
- **Consolidation of SDEs**
  - Develop a consistent set of SDEs
  - Minimum number of SDEs to satisfy all, or most of, the requirements

Geospatial SDEs

- **GEOPS--for geo-referencing parameters (datums, ellipsoids, projections)**
- **GRDPS--for non-rectified image, raster, or matrix data positioned with a location grid**
- **GEOLO--for data rectified with geographic (lat/lon) coordinate systems**
- **MAPLO--for data rectified with cartographic (E/N) coordinate systems**
- **REGPT--for registration points in either geographic or cartographic systems**
- **ACCPO--for horizontal and vertical accuracy**

Geospatial SDEs
(continued)

- **ACCHZ-- for horizontal accuracy**
- **ACCVT--for vertical accuracy**
- **SNSPS--for sensor parameters**
- **SOURC--for map source information**

RPF Tags

- **RPFHDR--merge into NITF File Header**
  - RPF header and location section

- **RPFIMG--merge into Image Subheader**
  - Coverage
  - Compression, color/grayscale and image included in Image Data

- **RPFDES--merge into DES Subheader**
  - Attributes, related images and replacement/update

GeoSDE and RPF
Extension Comparison

- **Three aspects to the RPF extensions:**
  - Multifile Product Structure
  - File Structure
  - Geospatial Attributes
- **GeoSDE only addresses the attributes**
  - RPF attributes generally a subset of GeoSDE
  - Some differing field lengths
  - ASCII vs Real value representations

Proposed way ahead

- **Command/Service Update**
  - Full informational presentations and white papers presented at GSMC
- **NIMA**
  - Develop proposed set of consolidated, consistent SDEs to address RPF/NITF/NSIF/DIGEST requirements
- **DGIWG**
  - Consolidate GeoSDEs into DIGEST
  - Support NSIF Custodian with coordination of NSIF
- **NSIF Custodian**
  - Support DGIWG and present NSIF status to NATO Air Group IV
  - Submit NSIF Ratification Edition 2 to Air Group IV in June 98
    - NSIF GeoSDEs contained in updated version of DIGEST

Schedule

- **8-12 December 97**
  - NSIF Custodian Meeting
  - Deleted GeoSDEs from NSIF

- **8 January 98**
  - GeoSDE kickoff TEM

- **2-6 February 98**
  - DIGEST Working Party

- **20 February 98**
  - NIMA Geospatial Standards Management Committee Meeting
  - RPF/NSIF Crosswalk TEM to develop RPF extension requirements

- **3-5 March 98**
  - NTB

Schedule (continued)

- **6 March 98**
  - ISMC

- **23-26 March 98**
  - GeoSDE TEM

- **30 March-3 April 98**
  - NSIF Custodian Meeting

- **June 98 (dates TBR)**
  - Joint DIGEST/NSIF/NITF/RPF meeting
  - NTB and G/ISMC
  - NATO Air Group IV

- **September 98**
  - NTB and G/ISMC
    - Submit proposed changes to NITF extensions to accomodate RPF
    - Recommed retirement of RPF